



# Wellcome Open Research

Robert Smith<sup>1,2</sup>







- 1) School of Health and Related Research, University of Sheffield, UK.
- 2) Dark Peak Analytics Ltd, Sheffield, UK


# Peer reviewed articles

Home » Browse » Does ethnic density influence community participation in mass participation...

RESEARCH ARTICLE

**REVISED** Does ethnic density influence community participation in mass participation physical activity events? The case of parkrun in England [version 2; peer review: 3 approved]

Robert Smith <sup>1</sup>, Paul Schneider <sup>1</sup>, Alice Bullas <sup>2</sup>, Steve Haake <sup>2</sup>, Helen Quirk <sup>2</sup>, Rami Cosulich<sup>1</sup>, Elizabeth Goyder <sup>1</sup>

 Check for updates

Author details

### Abstract

**Background:** parkrun has been successful in encouraging people in England to participate in their weekly 5km running and walking events. However, there is substantial heterogeneity in parkrun participation across different communities in England: after controlling for travel distances, deprived communities have significantly lower participation rates.

**Methods:** This paper expands on previous findings by investigating disparities in parkrun participation by ethnic density. We combined geo-spatial data available through the Office for National Statistics with participation data provided by parkrun, and fitted multivariable Poisson regression models to study the effect of ethnic density on participation rates at the Lower Layer Super Output Level.

**Results:** We find that areas with higher ethnic density have lower participation rates. This effect is independent of deprivation.

**Conclusions:** An opportunity exists for parkrun to engage with these communities and reduce potential barriers to participation.

### Keywords

parkrun, Physical Activity, Ethnic Density, Deprivation

ALL METRICS

617 VIEWS

58 DOWNLOADS

Get PDF

Get XML

Cite




Export

Track

Email







Share




### Open Peer Review

Reviewer Status    ⓘ

#### Reviewer Reports

Invited Reviewers

	1	2	3
Version 2 (revision) 18 Jun 20	 read	 read	 read
Version 1 16 Jan 20	 read	 read	 read

- Anne Grunseit <sup>1</sup>, The Australian Prevention Partnership Centre, NSW, Australia; University of Sydney, Sydney, Australia
- Gozde Ozakinci <sup>1</sup>, University of St Andrews, St Andrews, UK
- Stephen Senn <sup>2</sup>, Consultant Statistician, Edinburgh, UK

#### Comments on this article



All Comments (0)


[Add a comment](#)

Home » Browse » Making health economic models Shiny: A tutorial


METHOD ARTICLE

**REVISED** Making health economic models Shiny: A tutorial [version 2; peer review: 2 approved]

Robert Smith <sup>1</sup>, Paul Schneider <sup>1</sup>

 Check for updates

<sup>1</sup> Equal contributors

 Author details

### Abstract

Health economic evaluation models have traditionally been built in Microsoft Excel, but more sophisticated tools are increasingly being used as model complexity and computational requirements increase. Of all the programming languages, R is most popular amongst health economists because it has a plethora of user created packages and is highly flexible. However, even with an integrated development environment such as R Studio, R lacks a simple point and click user interface and therefore requires some programming ability. This might make the switch from Microsoft Excel to R seem daunting, and it might make it difficult to directly communicate results with decisions makers and other stakeholders.

The R package Shiny has the potential to resolve this limitation. It allows programmers to embed health economic models developed in R into interactive web browser based user interfaces. Users can specify their own assumptions about model parameters and run different scenario analyses, which, in the case of regular a Markov model, can be computed within seconds. This paper provides a tutorial on how to wrap a health economic model built in R into a Shiny application. We use a four-state Markov model developed by the Decision Analysis in R for Technologies in Health (DARTH) group as a case-study to demonstrate main principles and basic functionality.

A more extensive tutorial, all code, and data are provided in a [GitHub repository](#).

### Keywords

Health Economics, R, Shiny, Decision Science

ALL METRICS

1304 VIEWS

160 DOWNLOADS

Get PDF

Get XML

Cite



Export

Track

Email





Share


### Open Peer Review

Reviewer Status   ⓘ

#### Reviewer Reports

Invited Reviewers

	1	2
Version 2 (revision) 31 Jul 20	 read	 read
Version 1 14 Apr 20	 read	 read

- Talitha L. Feenstra, University of Groningen, Groningen, The Netherlands
- Yiqiao Xin <sup>1</sup>, University of Glasgow, Glasgow, UK

#### Comments on this article

All Comments (0)

[Add a comment](#)

[Sign up for content alerts](#)

[https://github.com/SchHARR-PHEDS/DoPE\\_Public](https://github.com/SchHARR-PHEDS/DoPE_Public)

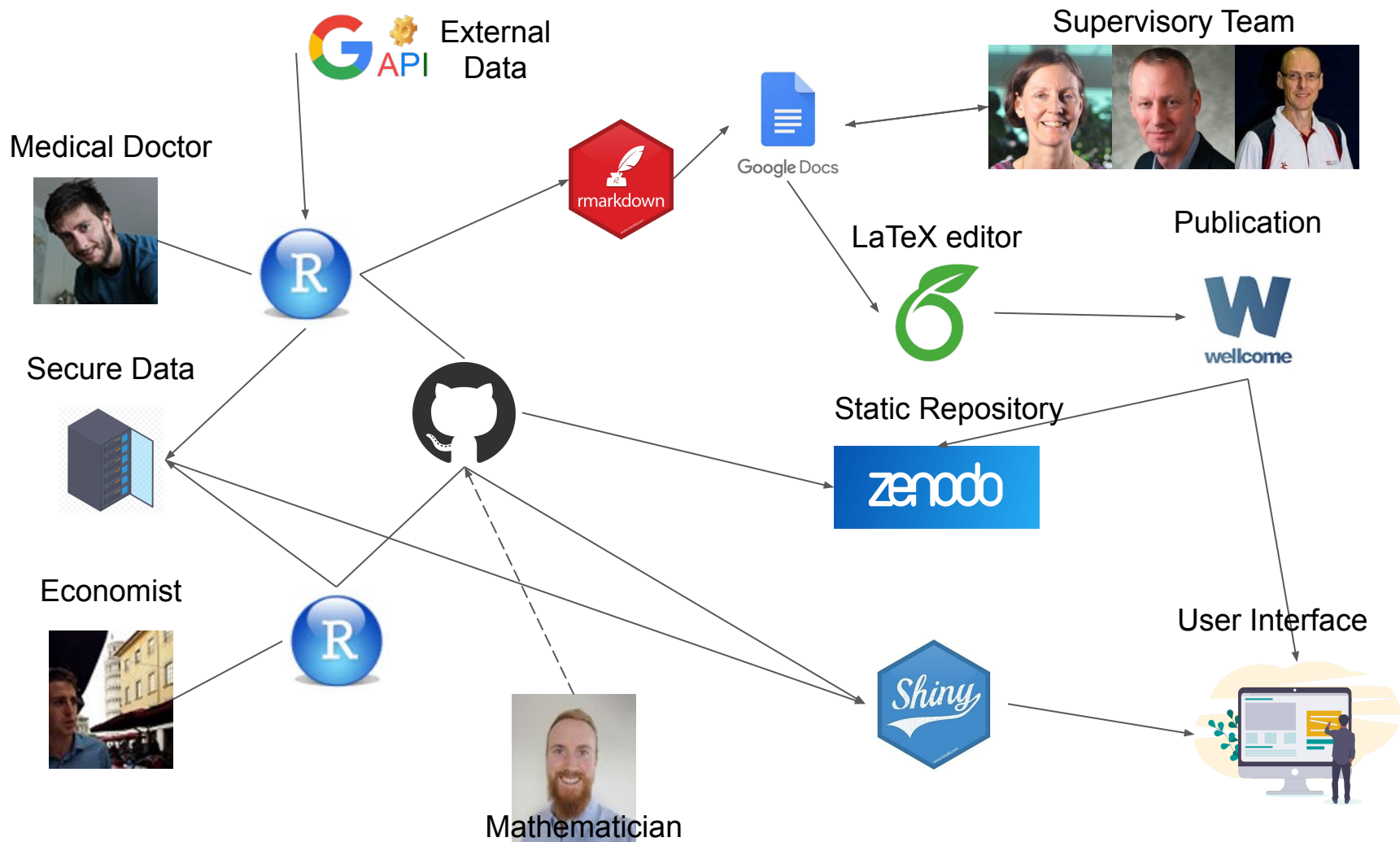
### Collaborators:

*Dr Paul Schneider, Prof Steve Haake SSJ (OBE), Prof Elizabeth Goyder, Prof Alan Brennan, Chrissie Wellington (OBE), Dr Alice Bullas, Dr Helen Quirk, Rowan Ardill, Tom Mason, Amy Chang, Rami Cosulich, Thomas Bayley.*

[https://github.com/RobertASmith/healthecon\\_shiny](https://github.com/RobertASmith/healthecon_shiny)

### Collaborators:

*Dr Paul Schneider*

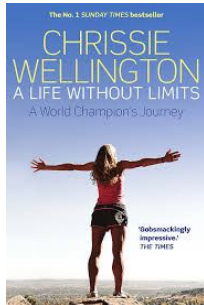


# Benefits

## Parkrun Paper

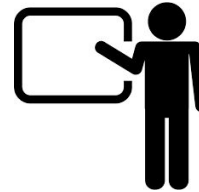


HOUSE OF COMMONS



**Sheffield  
Hallam  
University**

## R-Shiny Paper





# Wellcome Open Research

Robert Smith<sup>1,2</sup>

- 1) School of Health and Related Research, University of Sheffield, UK.
- 2) Dark Peak Analytics Ltd, Sheffield, UK